Amendments to the Specification

Please replace the paragraph that begins on Page 3, line 17 and carries over to Page 4, line 7 with the following marked-up replacement paragraph:

-- As another example of functional controls, the Lotus Notes® e-mail application can be configured not to send an outbound e-mail message having a "confidential" security attribute to any recipients whose address is outside the local intranet. Or, in some cases, an e-mail message may still be delivered to such recipients, but this message will have the text and any attachments suppressed -- in effect, providing the recipient with only a notification that the sender attempted to send something more. Here, the application system is responsible for maintaining certain controls (and in this example, maintains them at a per-document, all-or-nothing level). As in the other examples which have been discussed, the user may rather easily avoid these functional controls: he simply has to remove the security attribute from the e-mail message, and the complete message can be sent. ("Lotus Notes" is a registered trademark of International Business Machines Corporation in the United States, other countries, or both.) --

Please replace the paragraph on Page 15, lines 7 - 20 with the following marked-up replacement paragraph:

-- Each security container includes access and/or functional controls which are preferably specified by rules, as stated earlier. According to the present invention, these rules are stored within the security container in encrypted form. See element 120. Encrypting the rules increases assurance that unauthorized users cannot operate on the document component in the security container. (Note that the term "rules" should not be construed as limiting embodiments of the

present invention to use with rule-based systems or rules engines. The rules may be implemented simply as Boolean values, lists of permitted operations, conditional logic, and so forth.) In preferred embodiments, the rules are encrypted with a symmetric key, and this symmetric key is itself encrypted, once for each authorized user, process, user group, or group of processes, with a public key of that authorized entity. The resulting encrypted symmetric key for each such authorized entity is contained within encryption header 110, as noted above. The encryption header therefore provides a secure, efficient way of distributing key material for the authorized entities, as will be described in more detail below. (References herein to authorized users or user groups are to be interpreted as applying also to authorized processes or groups of processes.) --

Please replace the paragraph that begins on Page 42, line 9 and carries over to Page 43, line 1 with the following marked-up replacement paragraph:

-- As another example, if the requester's context indicates that she is using a text processing application that she has configured as being in her "business" isolation zone, then the rules may check to ensure they allow processing the security container's document component with that text processing application and rendering the document component within the business isolation zone. Or, the rules might check to ensure that she is using, for example, a StarOffice® application to edit a Microsoft Word document, and prevent access to the document component unless this is the case. Or, if the user attempts to paste a diagram from a Lotus Freelance Graphics® presentation into a Word document, where the rules encapsulated in the security container for that diagram prevent this cross-application transfer, then the paste operation will not succeed. If the user subsequently copies the diagram (or perhaps an icon representing the

diagram) onto the clipboard, and then attempts to paste the icon into a Freelance document, on the other hand, the rules will allow this transfer (assuming the other conditions checked by the rules have been met). ("StarOffice" is a registered trademark of Sun Microsystems, Inc. in the United States, other countries, or both, and "Freelance Graphics" is a registered trademark of International Business Machines Corporation in the United States, other countries, or both.) --

Please replace the paragraph on Page 50, lines 7 - 19 with the following marked-up replacement paragraph:

-- Still referring to Fig. 10, the networks 942 and 944 may also include mainframe computers or servers, such as a gateway computer 946 or application server 947 (which may access a data repository 948). A gateway computer 946 serves as a point of entry into each network 944. The gateway 946 may be preferably coupled to another network 942 by means of a communications link 950a. The gateway 946 may also be directly coupled to one or more workstations 910 using a communications link 950b, 950c. The gateway computer 946 may be implemented utilizing an Enterprise Systems Architecture/370™ available from the International Business Machines Corporation ("IBM®"), an Enterprise Systems Architecture/390® computer, etc. Depending on the application, a midrange computer, such as an Application System/400® (also known as an AS/400®) may be employed. ("Enterprise Systems Architecture/370" is a trademark of IBM; "IBM", "Enterprise Systems Architecture/390", "Application System/400", and "AS/400" are registered trademarks of IBM in the United States, other countries, or both.) The gateway computer 946 may also be coupled 949 to a storage device (such as data repository 948). --